

Lockout/tagout

By Mark J. Mullins

Before you begin, obtain the following:

- A copy of your lockout/tagout procedure, if one exists;
- A copy of your lockout/tagout permit/form;
- Any accident or near-miss reports that occurred regarding lockout/tagout;
- Samples of the locks and tags used in your facility;
- Any personal protective equipment, required to be worn during lockout/tagout, if applicable;
- A chalkboard or whiteboard to capture some of the possible answers. Use these to stimulate discussion.



Be prepared to use a question-and-answer format requesting the participants to drive the discussion and suggest improvements to your system.

Approximately 145 deaths are attributed to the failure to control energy in the workplace. Sixty-three percent of the workers injured by the release of energy were production workers.

Ask the group to define the purpose of the organization's lockout/tagout program. The answer should be to prevent energy from accidentally being released while a machine or equipment is being serviced.

Ask the group to name some of the energy sources in your workplace. Examples include:

- Electrical;
- Mechanical;
- Stored energy;
- Hydraulic;
- Pneumatic;
- Valve handles;
- Disconnect switches;
- Springs.

If you have any of these energy sources, have the participants identify them and where they are located.

Review any incidents that have occurred because of a failure to isolate energy sources.

Definitions

Review the following definitions with the group.

Affected employee

Employee who operates or uses the equipment that is under lockout, or who works in an area where lockout/tagout is being performed.

Authorized employee

Employee, such as an electrician, who performs service or maintenance on electrical equipment.

All devices designed to control the flow of energy, such as circuit breakers, valve handles or disconnect switches, must have the capability of being locked out.

The main objective of the lockout procedures is to achieve a zero-energy state on any piece of equipment being serviced.

Ask the participants to identify what should be included in a lockout/tagout program. Possible answers are listed below.

- Include a written program, along with employee training on the program and periodic inspections.
- Provide locks, tags, valve locks and other hardware to the employee for isolating, securing or blocking equipment to be serviced. All isolating equipment must be durable, identifiable, standardized and capable to isolate the energy and warn against hazardous conditions.
- Have the authorized employee periodically review the program at least on an annual basis to identify areas for improvement. The employee certifies this review process.
- Develop special procedures, document and use them for those out of the ordinary energy sources.
- Keep the energy source in an off or safe position for the devices used.
- Notify all affected employees of the lockout/tagout.
- The authorized employee will verify the equipment is properly isolated and safe to service.
- Upon completion of the work, the authorized employee will verify the machine can safely be returned to service and the affected employees have been notified.

Ask the group to identify potential lockout/tagout traps or programs. Use a chalkboard or white board to capture suggestions from the participants and use this information for discussion. Possible answers are:

- Failure to identify all energy sources. In some cases, the electrical energy may be properly locked out, however other forms of energy such as pneumatic, hydraulic, energy due to gravity may be left within the equipment;
- Improper isolation of a lock. Your lock must positively prevent the energy isolating switch from operating. Locking your lock through the shackle of another person's lock will not prevent the operation of the energy isolating switch;

- Not applying your own lock. Remember, your lock is your lifeline. Do not perform any work on equipment until you perform all lockout steps.

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We always strive to improve the *Safety Leader's Discussion Guide*. Your feedback can help. Please send your comments via e-mail to Safety@ohiobwc.com.

References

Web sites

- Control of Hazardous Energy (Lockout/Tagout) (Occupational Safety and Health Administration): www.osha.gov/SLTC/controlhazardousenergy/index.html
- One-hour safety presentation on Lockout/Tagout and Safety-related Work Practices (Ohio Bureau of Workers' Compensation): www.ohiobwc.com/employer/programs/safety/SandHTrain.asp
- Lockout/tagout (Virginia Tech): www.ehss.vt.edu/programs/lockout.php

Videos

BWC's Division of Safety & Hygiene's video library has a number of videos on lockout/tagout. These are available for loan to Ohio employers. Order a catalog by calling **1-800-OHIOBWC** (ask for the video library), or visit our Web site, ohiobwc.com.